



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,070	11/13/2001	Ching-Lang Chuang	BHT-3111-212	6315

7590 09/09/2004

DOUGHERTY & TROXELL  
SUITE 1404  
5205 LEESBURG PIKE  
FALLS CHURCH, VA 22041

EXAMINER
----------

PHAM, TUAN

ART UNIT	PAPER NUMBER
----------	--------------

2643

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 09/987,070	<b>Applicant(s)</b> CHUANG, CHING-LANG	
	<b>Examiner</b> TUAN A PHAM	<b>Art Unit</b> 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 10-11, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh (U.S. Patent No.: 6,389,278) in view of Eckert et al. (U.S. Patent No.: 6,745,046, hereinafter, "Eckert").

**Regarding claim 1**, Singh teaches a system combining a pager type personal digital assistant and a mobile phone module comprising (see figure 1A, wireless communicator 100):

a pager for real-time receiving data from a broadcasting system in whole day (see figure 1A, pager 106, it is obvious, the pager can receives the data from pager center at any time in a day);

a central processing unit (i.e., controller) integrating with a pager, a personal digital assistant and a GSM/DCS system (i.e., wireless radio telephone) and having a function of controlling (see figure 1A, controller 120, pager 106, phone 104, col.1, ln.14-26, col.4, ln.21-42);

a personal digital assistant unit for displaying received data and making a selection responsive to the received data (see col.2, ln.19-67); and

Wherein by above structure, a pager type personal digital assistant and a mobile phone module are integrated as an integral device; therefore, a space occupied is reduced and the integrated device is portable, users operate the system at any time and place (it is obvious the user can use the wireless communicator at any time and any place with the real time data); data and speech can be transferred bidirectionally through three channels (fax and phone channels) and data propagation can be realized in time (see figure 1B, col.1, ln.14-25, col.2, ln.46-67).

It should be noticed that Singh fails to clearly teach a GSM/DCS integrating circuit for controlling operations of components of a mobile phone, a communication interface having two frequency channels for bidirectionally transmitting speech and data signals and then transmitting signals through GSM or DCS channels wherein data and speech can be transferred bidirectionally through two channels. However, Eckert teaches such features (see figure 1, col.3, ln.43-67, col.4, ln.1-50) for a purpose of transmitting the signals in dual band frequency.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of a GSM/DCS integrating circuit for controlling operations of components of a mobile phone, a communication interface having two frequency channels for bidirectionally transmitting speech and data signals and then transmitting signals through GSM or DCS channels wherein data and speech can be transferred bidirectionally through Two channels, as taught by Eckert, into view of Singh in order to save the space for the device and make it smaller.

**Regarding claim 2**, Singh further teaches the system combining a pager type personal digital assistant and a mobile phone module, wherein a speaker is installed at a selected position of the system (see figure 1A, speaker 138).

**Regarding claim 3**, Singh further teaches the system combining a pager type personal digital assistant and a mobile phone module wherein the personal digital assistant includes an infrared port, a key platform, a liquid crystal display, a memory, a security device (see figure 1A, input 134, display 132, col.4, ln.26-36, col.8, ln.10-25)(Singh fails to explicitly teach the PDA includes infrared port and security device. However, Singh teaches a PDA device. Therefore, the PDA device is well known to include an infrared port and circuitry to protect the PDA from damage).

**Regarding claim 4**, Singh further teaches the system combining a pager type personal digital assistant and a mobile phone module wherein the key platform includes a plurality of directional keys, an input key, and an electrostatic sensing pen. Singh fails to explicitly teach plurality of directional keys and an electrostatic sensing pen. However, Singh teaches a PDA device. Therefore, The PDA device is well known to include plurality of directional keys and an electrostatic sensing pen.

**Regarding claim 10**, Eckert further teaches the system combining a pager type personal digital assistant and a mobile phone module, wherein the GSM/DCS mobile phone system is actuated by an independent power switch (see col.4, ln.10-25).

**Regarding claim 11**, Eckert further teaches the system combining a pager type personal digital assistant and a mobile phone module, wherein the three channels are a

Art Unit: 2643

channel of the pager, a channel of GSM system and a channel of DCS channel (see col.3, ln.44-62).

**Regarding claim 13**, Eckert further teaches the system combining a pager type personal digital assistant and a mobile phone module wherein a transmitting frequency of the GSM system is 880 ~ 915 MHz and a receiving frequency thereof is 925.about.960 MHz (see col.3, ln.44-62).

**Regarding claim 14**, Eckert further teaches the system combining a pager type personal digital assistant and a mobile phone module wherein a transmitting frequency of the DCS system is 1710 ~ 1785 MHz and a receiving frequency thereof is 1805.about.1880 MHz (see col.3, ln.44-62).

**Regarding claim 15**, Eckert fails to explicitly teach the system combining a pager type personal digital assistant and a mobile phone module wherein data is sent by a wireless application protocol as a standard of bidirectional data transmission. However, Eckert teaches transmitting a dual frequency in mobile phone (see col.3, ln.49-62). Therefore, the data sent by a wireless application protocol as a standard of bidirectional data transmission is obvious in wireless communication device.

3. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh (U.S. Patent No.: 6,389,278) in view of Eckert et al. (U.S. Patent No.: 6,745,046, hereinafter, "Eckert") as applied to claim 1 above, and further in view of Koleda et al. (U.S. Patent No.: 6,782,242, hereinafter, "Koleda").

**Regarding claim 5**, Singh and Eckert, in combination, fails to clearly teach the mobile phone includes a memory, a subscriber identity module (i.e., sim card), a speaker/microphone, a hand free receiver. However, Koleda teaches such features (see figure 3, col.3, ln.48-67)(Koleda fails to explicitly teach a hand free receiver. However, Koleda teaches a mobile device. Therefore, the mobile telephone is well known to include a hand free receiver) for a purpose of listing all elements in mobile phone.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the mobile phone includes a memory, a subscriber identity module (i.e., sim card), a speaker/microphone, a hand free receiver, as taught by Koleda, in view of Singh and Eckert in order to communicate by wireless operation.

**Regarding claim 6**, Koleda further teaches the system combining a pager type personal digital assistant and a mobile phone module wherein the speaker is utilized in a receiver of the mobile phone (see figure 3, earpiece 21).

**Regarding claim 7**, Koleda further teaches the system combining a pager type personal digital assistant and a mobile phone module wherein the microphone is utilized in a transmitter of the mobile phone (see figure 3, microphone 46).

**Regarding claim 8**, Koleda further teaches the system combining a pager type personal digital assistant and a mobile phone module wherein the subscriber identity module is a metal chip card storing the phone number of the mobile phone, a program

for actuating the mobile phone, and having a plurality of memory space (see figure 3, sim card 16).

**Regarding claim 9**, Koleda further teaches the system combining a pager type personal digital assistant and a mobile phone module wherein the communication interface includes an analog/digital converting circuit, a digital/analog converting circuit, a GSM/DCS channel selecting circuit, and an antenna (see figure 3, col.3, ln.48-67).

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Singh (U.S. Patent No.: 6,389,278) in view of Eckert et al. (U.S. Patent No.: 6,745,046, hereinafter, "Eckert") as applied to claim 1 above, and further in view of Barrus et al. (U.S. Patent No.: 6,522,242, hereinafter, "Barrus").

**Regarding claim 12**, Singh and Eckert, in combination, fails to clearly teach the system combining a pager type personal digital assistant and a mobile phone module wherein a receiving frequency of the pager is 285 ~ 1375 MHz. However, Barrus teaches such features (see col.2, ln.23-30) for a purpose of selecting a particular frequency band.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the system combining a pager type personal digital assistant and a mobile phone module wherein a receiving frequency of the pager is 285 ~1375 MHz, as taught by Barrus, into view of Singh and Eckert in order to independently process signals for a particular frequency.



***Allowable Subject Matter***

5. Claim 16 is allowed.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Harris et al. (U.S. Patent No. 6,164,531), Kim (U.S. Patent No. 6,397,078), Ditzik (U.S. Patent No. 5,983,073), and Boesen (U.S. Patent No. 6,542,721) are not applied into this Office Action; they are also called to Applicants attention. They may be used in future Office Action(s). These references are also concerned for supporting the system and method for a cellular telephone, PDA and pager unit.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (703) 305-4987. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (703) 305-4708 and

**IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Art Unit: 2643

Washington, D.C. 20231

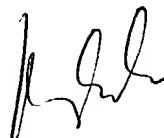
Or faxed to: (703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2643  
August 26, 2004  
Examiner

Tuan Pham



HUYEN LE  
PRIMARY EXAMINER